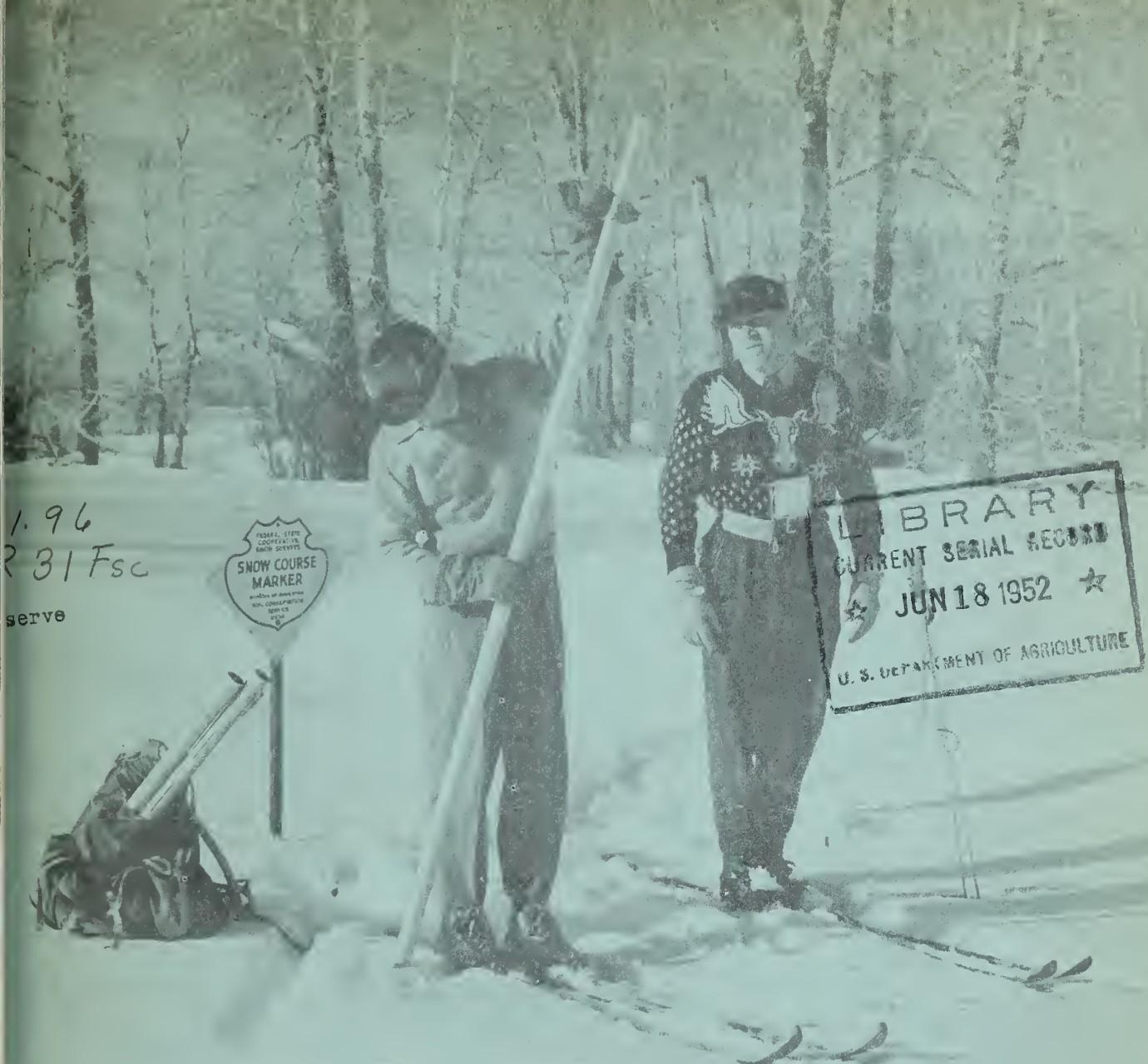


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FEDERAL - STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION WATER FORECASTS
for
Colorado River Drainage Basin

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Colorado Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the U. S. Forest Service, National Park Service, State Engineers of Colorado, Wyoming and New Mexico and other Federal, State and local organizations.

As of

APR. 1, 1951

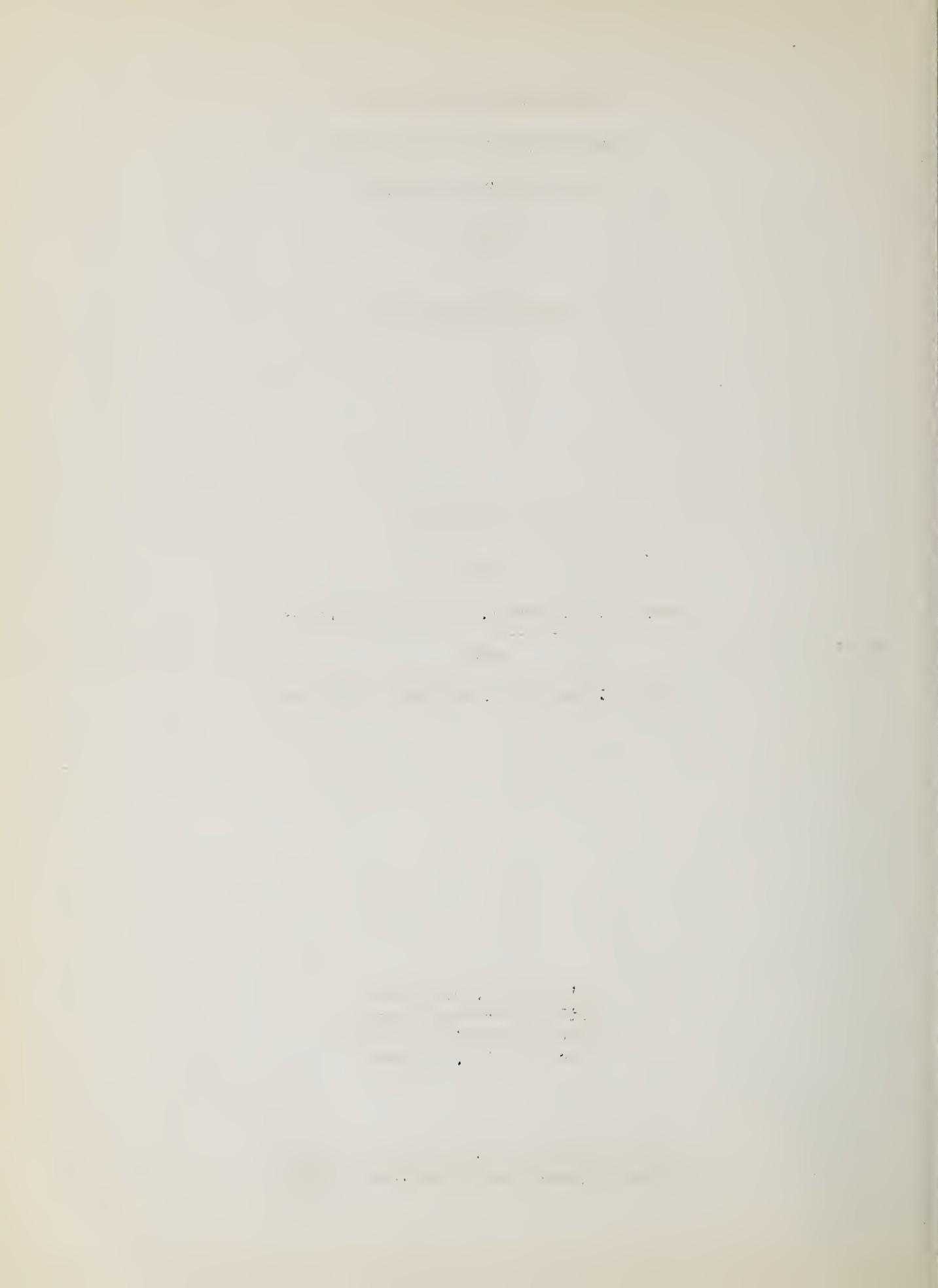
FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION
WATER SUPPLY FORECASTS

FOR
COLORADO RIVER BASIN

Report Prepared
by
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Soil Conservation Service
Colorado Experiment Station
Fort Collins, Colorado

Miscellaneous Series Paper No. 488
Colorado Agricultural Experiment Station



WATER SUPPLY OUTLOOK
COLORADO RIVER DRAINAGE
April 1, 1951

Snow accumulation on the headwaters of the Colorado River in Wyoming and Colorado is generally above average for April 1 and considerably above this date in 1950. Snow cover is well above normal on the headwaters of the Green in Wyoming and on the source of the Colorado and Gunnison Rivers in Colorado. Elsewhere on the Colorado River Drainage in Colorado snow cover is normal or slightly below normal. On New Mexico tributaries snow fall has been deficient. Soil moisture conditions are reported as fair to good in Wyoming and Colorado except for the extreme southwest section of Colorado.

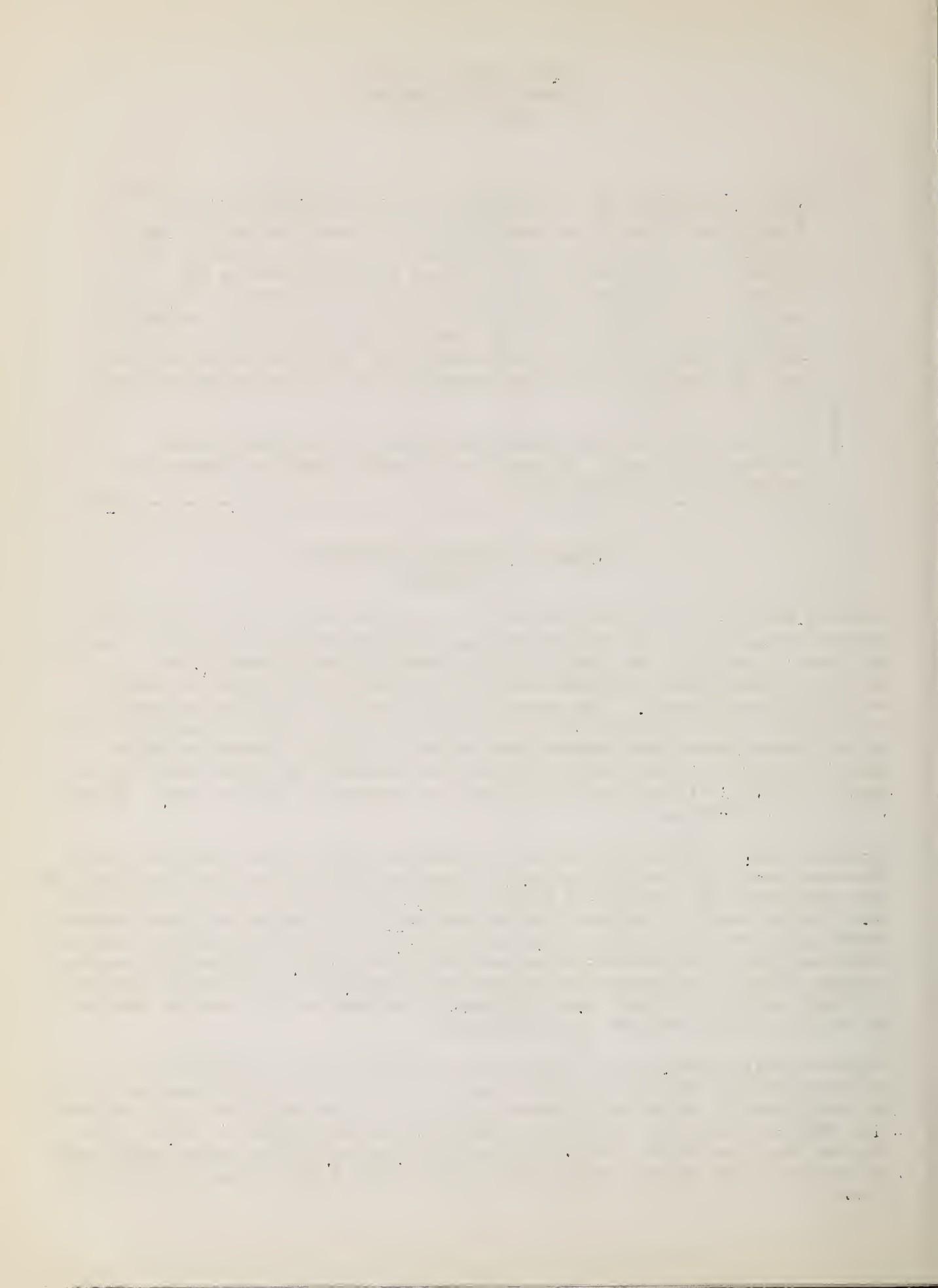
The snow cover at high elevations in Arizona continues to be extremely deficient. Stream flow is below normal and reservoir storage is at minimum levels.

COLORADO RIVER AND TRIBUTARIES
IN COLORADO

Colorado River (Above Glenwood Springs): The snow cover on the Colorado and Roaring Fork, rivers above Glenwood Springs is substantially above normal and for this date a year ago. At high elevations north of the Colorado River and on the Grand Mesa in Western Colorado the current snow cover is normal or slightly below normal. The summer flow of the Blue River and adjacent tributaries to the Colorado will be much above average since current snow cover is the highest since snow surveys were started in 1936. Storage in Green Mountain reservoir is now 63,000 acre-feet as compared to 77,000 acre-feet on April 1, 1950. Soil moisture conditions are reported as fair to good. Stream flow is about normal.

Gunnison River: The summer flow of the Gunnison River above Black Canyon will be above normal for the 1951 season, but somewhat below normal at Grand Junction. Snow cover near the Continental Divide and near Kebler Pass is well above average. To the south of the river on the Lake Fork, Uncompahgre and other tributaries the snow cover is deficient. Precipitation in valley areas has been below normal and soil moisture conditions are described as fair. Stream flow is near average. Storage in Taylor Park reservoir is now 51,000 acre feet as compared to 73,000 acre feet a year ago. The general outlook for the Gunnison drainage is slightly better than for the 1950 season.

Yampa and White Rivers: The snow cover on the Green River tributaries in Colorado is about average for this date. The snow cover on the Yampa is slightly above normal. On the White River there is a slight deficiency in snow cover. Soil moisture conditions in valley areas are reported as fair to good. There is snow remaining in the valley near Steamboat Springs. The summer runoff will be slightly above average on the Yampa and slightly below average on the White River.



San Juan and Animas Rivers: The water supply outlook on the San Juan, Animas and other streams in south western Colorado has declined during the past month. Snow cover on the San Juan mountains is now about 65 percent of normal. There is practically no snow on the New Mexico tributaries. The summer runoff in the streams of the San Juan Basin will be about 50 percent of normal. Soil moisture conditions at valley elevations are fair to poor. Stream flow is below average. Range and crop conditions are reported as poor at this time. Stream flow is less than normal.

Dolores River: Snow cover on the headwaters of the Dolores River decreased rapidly during the past month. The water supply outlook on this stream is similar to that for the San Juan Basin. The soil is extremely dry in the Cortez area. Storage in Ground Hog reservoir is now 3500 acre-feet as compared to 8000 acre-feet a year ago.

COLORADO TRIBUTARIES IN UTAH

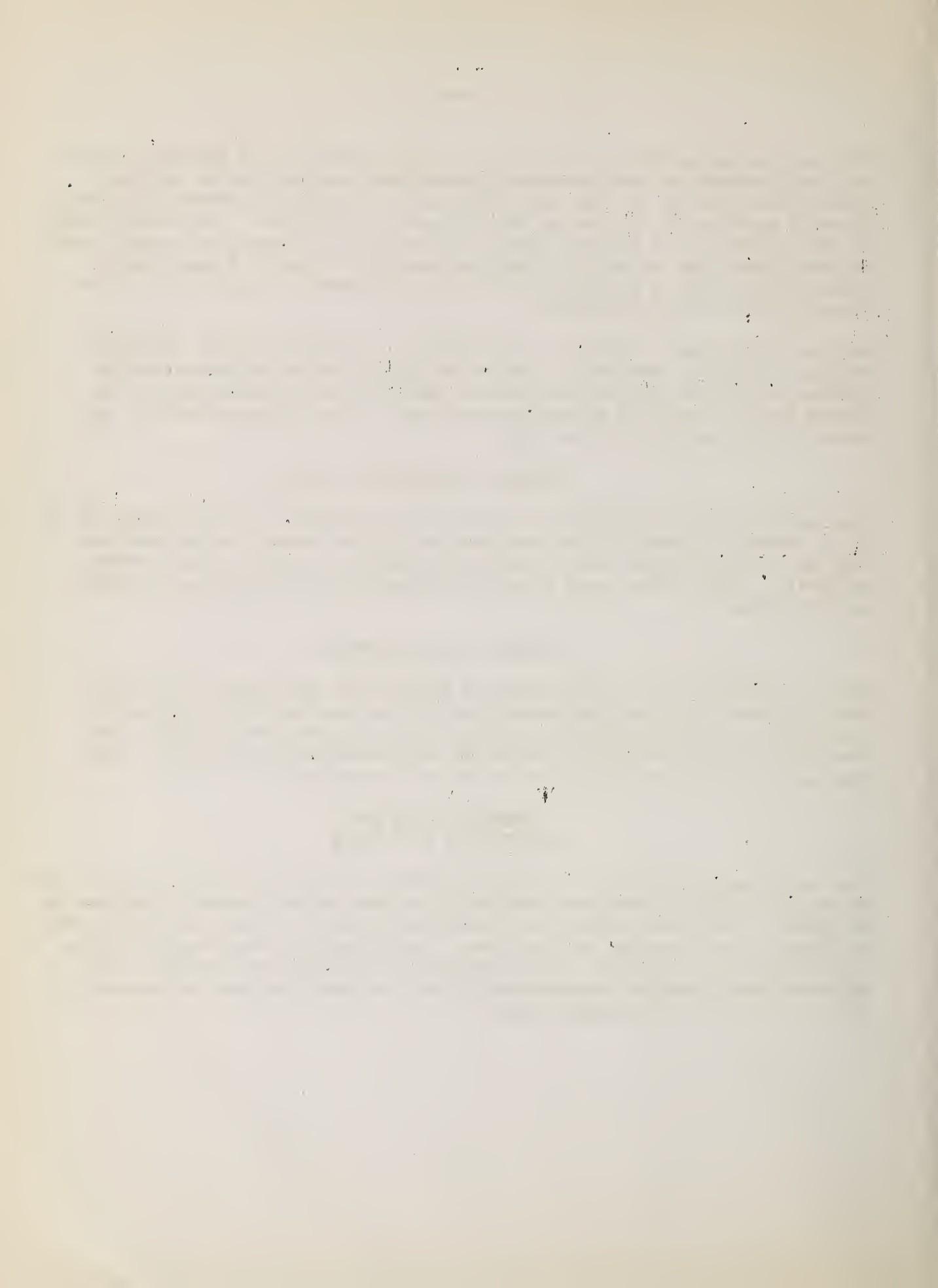
The snow cover on the headwaters of the Utah tributaries to the Colorado is 80 to 90 percent of normal in the northern part of the state. In southwestern Utah on the Virgin River snow cover is 31 percent of normal and 42 percent of April 1, 1951. Snow cover is also deficient at high elevations in southeastern Utah.

GREEN RIVER IN WYOMING

On the headwaters of the Green River in Wyoming the snow cover is very high for this date. The April-September flow of the Green at Linwood, Utah is expected to be about 1,500,000 acre feet which is less than for 1950. The heavy flow in 1950 was due to unusually heavy snowfall during April. Soil moisture and range conditions are reported as very good.

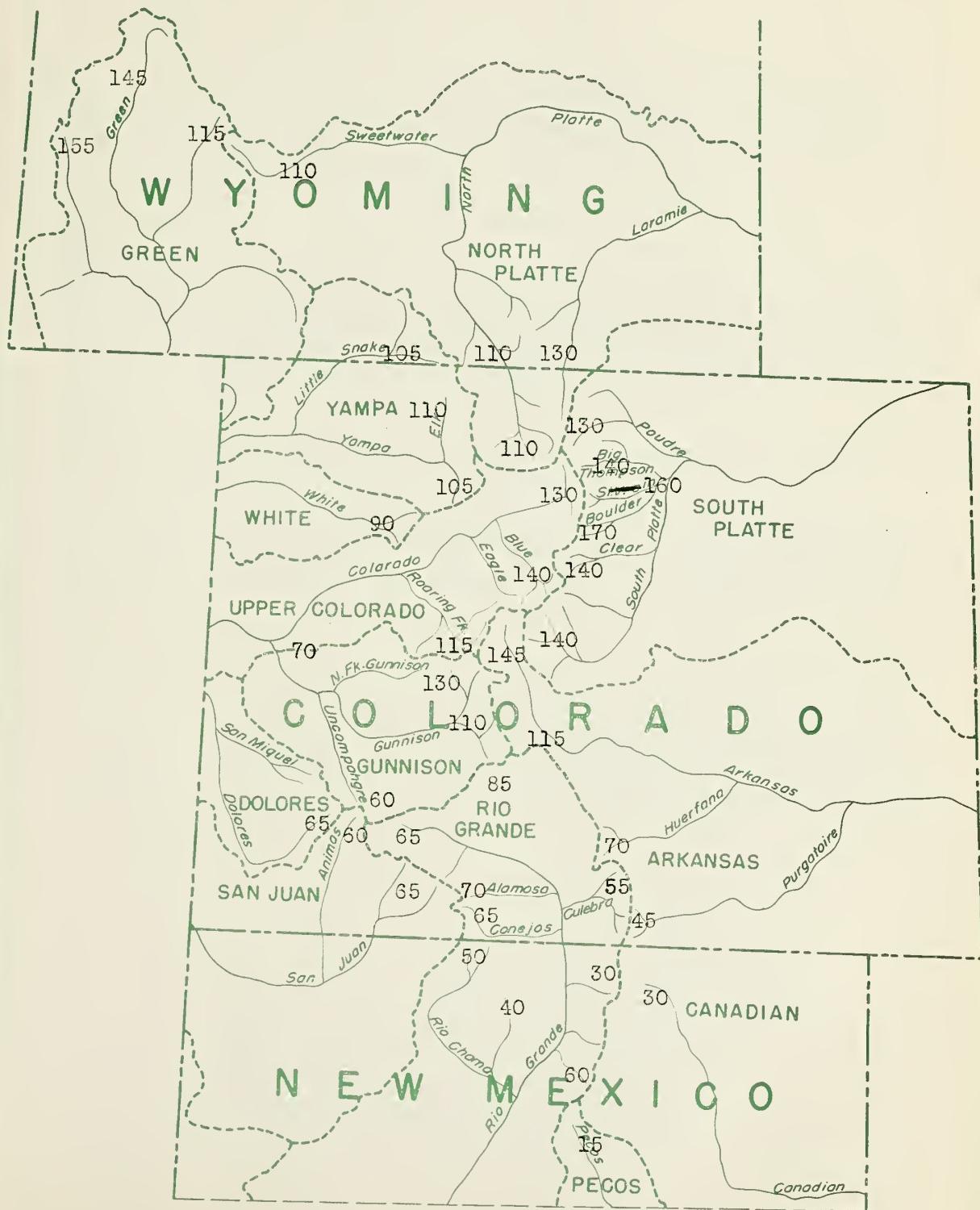
COLORADO RIVER AND TRIBUTARIES IN ARIZONA

The water supply outlook for the Colorado River tributaries in Arizona continues to be unfavorable. There was practically no snow on any courses in Arizona as of April 1. Reservoir storage is a small fraction of the past ten year average and lower than a year ago at this time. The irrigation water supply will be extremely short on the Salt, Verde and Gila irrigated areas for 1951. Soil moisture conditions are reported as fair on the Verde drainage but extremely dry on the Salt and Gila watersheds.



WATER CONTENT OF SNOW ON THE WATERSHEDS OF
PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE BASINS
BASED ON SNOW SURVEYS MADE APPROXIMATELY FIRST DAY OF MONTH

In Percent of Normal
April 1, 1951





COLORADO RIVER DRAINAGE BASIN
STREAM FLOW FORECASTS, APRIL 1, 1951

BASIN AND STREAM	April-Sept., Incl., Streamflow, Acre Feet			10-year Avg. 1940-1949
	Forecast 1951	Measured Runoff 1949	1948	
GREEN				
Green at Linwood, Utah	1,500,000	2,118,000	1,145,000	1,077,000
Little Snake at Lily	360,000	390,000	493,000	249,000
Elk at Clark	250,000	224,000	267,000	189,000
Yampa at Steamboat Springs	300,000	245,000	340,000	291,000
White at Meeker	290,000	303,000	404,000	332,000
COLORADO				
Colorado near Granby	235,000*	144,000	137,000	152,000
Willow Creek near Granby	52,000	56,000	56,000	38,000
Frazer at Granby	125,000	73,000	122,000	91,000
Blue above Green Mt. Res.	400,000	254,000	318,000	292,000
Colorado at Glenwood Springs	1,850,000*	1,112,000	1,681,000	1,477,000
Roaring Fork at Glenwood Springs	950,000	633,000	799,000	888,000
Plateau Creek at Collbran	45,000	52,000	58,000	58,000
Gunnison at Iola	700,000	472,000	672,000	737,000
Uncompahgre at Colona	125,000	92,000	195,000	183,000
Surface Creek near Cedaredge	12,000	-----	15,000	29,000
Gunnison at Grand Junction	1,200,000	1,018,000	1,751,000	1,966,000
San Juan at Rosa, N. M.	350,000	379,000	973,000	797,000
Piedra Creek at Piedra	110,000	121,000	307,000	230,000
Los Finos near Bayfield	125,000	168,000	314,000	321,000
Florida near Durango	45,000	37,000	99,000	93,000
Animas at Durango	325,000	323,000	694,000	567,000
La Plata at Hesperus	15,000	17,000	45,000	32,000
Dolores at Dolores	200,000	207,000	359,000	348,000
Colorado near Grand Canyon-Ariz.	9,200,000	8,271,000	11,645,000	10,286,000
				10,027,000

*Including diversions and storage

SNOW SURVEYS AND IRRIGATION WATER FORECASTS
COLORADO RIVER BASIN

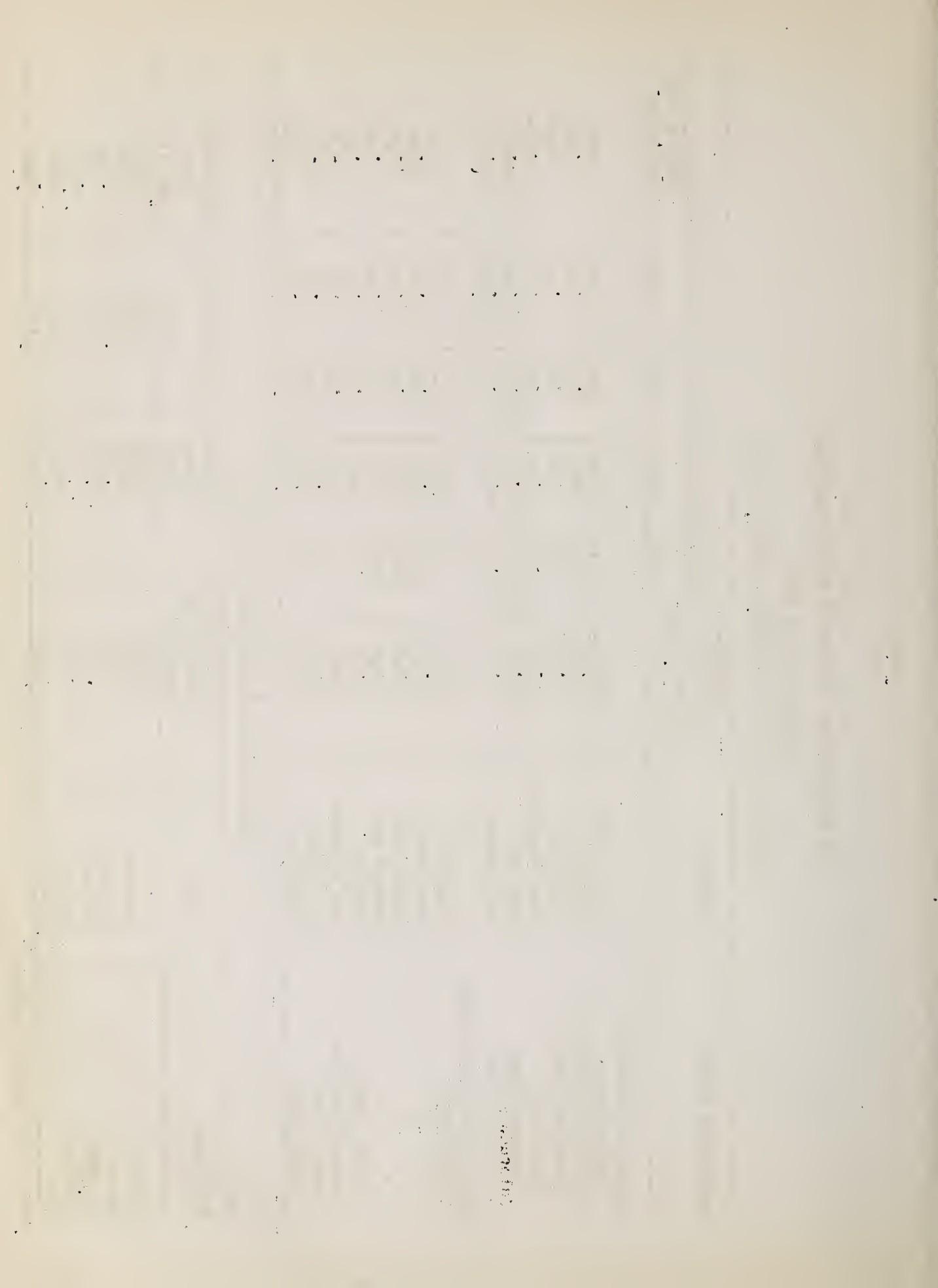
STATUS OF RESERVOIR STORAGE, APRIL 1, 1951

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous. A.Ft.)	THOUSANDS ACRES FEET IN STORAGE ABOUT APRIL 1					10-YR. Avg. 1940-1949
			1951	1950	1949	1948		
COLORADO DRAINAGE								
Taylor River	Taylor Park	106.2	51.1	72.6	65.0	87.4	69.4	
Los Pinos River	Vallecito	126.3	27.1	55.0	33.5	57.1	37.2	
Groundhog Creek	Groundhog	21.7	3.5	8.0	6.0	11.0	10.2*	
Blue River	Green Mountain	146.9	63.2	68.4	53.8	47.3	51.2*	
Colorado River	Lake Mead	27935.0	16806.0	17686.0	17735.0	18620.0	18886.0	
Colorado River	Lake Havasu	668.0	604.2	663.4	607.9	608.8	590.5	
SALT AND GILA DRAINAGE								
Salt River	Roosevelt	1420.0	4.8	276.1	331.3	54.6	641.8	
" "	Horse Mesa	245.0	135.0	227.1	140.7	157.6	207.4	
" "	Mormon Flat	58.0	54.0	51.2	35.1	25.0	41.6	
" "	Stewart Mt.	70.0	48.0	48.8	37.2	36.6	43.0	
Verde River	Bartlett	179.5	66.0	59.7	117.6	19.6	97.2	
Aqua Frio River	Carl Pleasant	173.0	0.0	6.7	29.6	0.9	31.7	
Gila River	San Carlos	1200.0	0.0	73.3	260.3	12.8	276.9	
Verde River	Horseshoe	67.0	1.0	2.0	63.0	10.0	19.8*	

P R E C I P I T A T I O N D A T A

WATERSHED	STATE	Precipitation			Departure from Normal	Precipitation March	Departure from Normal
		October 1 to	March 31	Inches			
Colorado	Colorado	7.46		-1.77	.80	-• .98	
Green	Wyoming	3.66		-1.15	0.49	-0.37	
San Juan	New Mexico	2.38		-3.03	0.28	-0.76	
Colorado	Arizona	3.57		-5.43	0.94	-0.94	
Gila	Arizona	3.69		-4.84	1.26	-0.27	

*Some for shorter periods



SNOW SURVEYS AND IRRIGATION WATER FORECASTS
for

COLORADO RIVER BASIN

APRIL 1, 1951

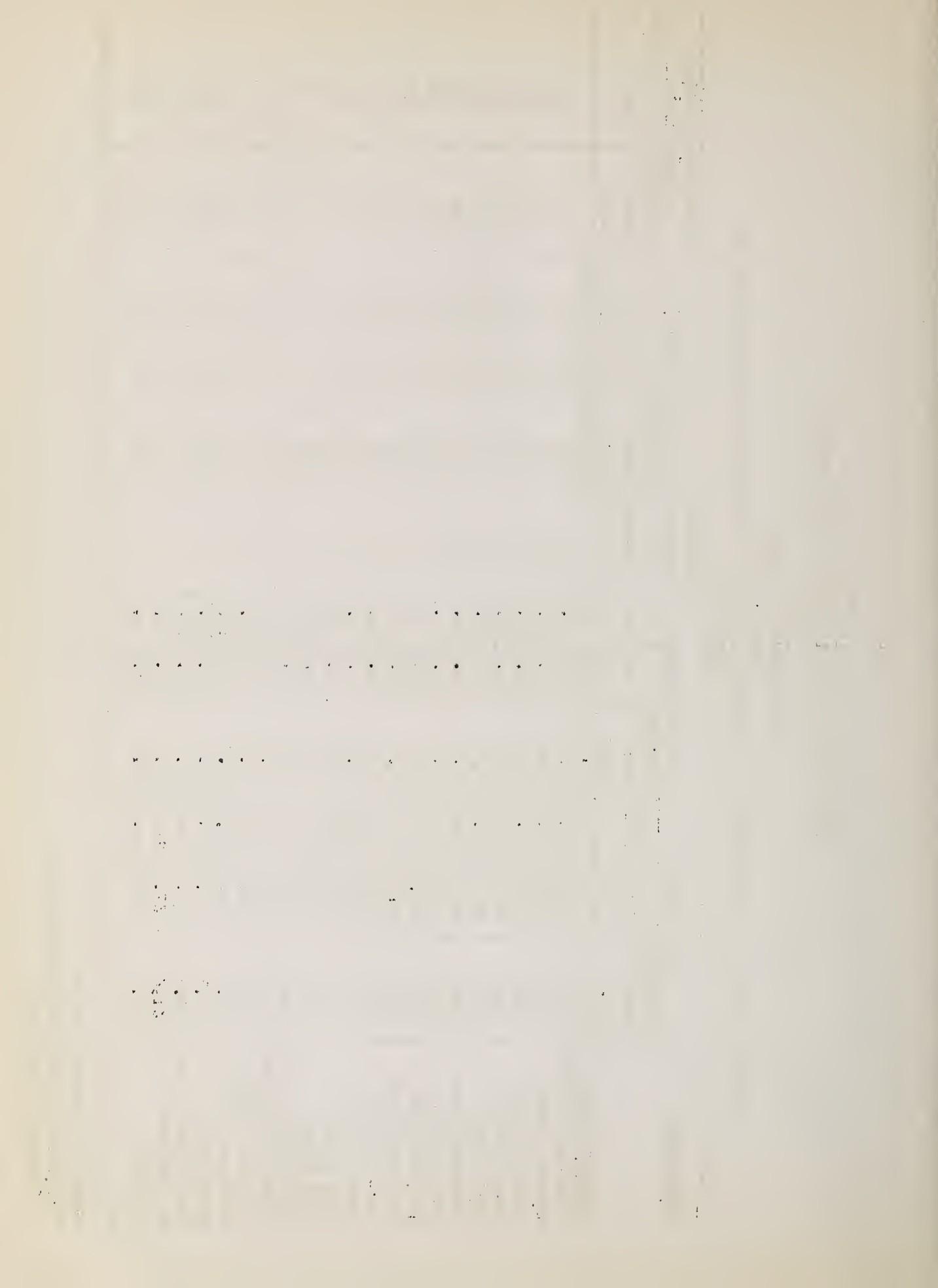
SUMMARY OF APRIL 1 SNOW SURVEYS AND COMPARISON OF DATA WITH THAT OF PREVIOUS YEARS BY
WATERSHEDS

WATERSHEDS	Snow Depth				Water Content				Snow Density				1951 Water Content in percent of			
	Fourteen year		1950		1951		Fourteen year Avg.*		1950		1951		Fourteen year Avg.*		1950	
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
COLORADO RIVER																
Colorado River**	45.7	45.9	52.4	13.6	13.5	16.9	20	30	28	32	31	35	124	125		
Rearring Fork	44.3	42.9	42.9	13.6	13.4	14.9	3	31	31	35	110	112				
Plateau Creek	70.6	68.3	50.3	23.4	24.6	15.9	2	33	34	36	68	65				
Yampa River	62.0	65.7	61.9	21.0	22.4	22.8	5	34	35	37	109	102				
White River	50.9	47.7	44.5	17.3	15.7	15.0	2	34	33	34	87	96				
Garrison River	51.8	48.7	44.9	16.7	17.0	14.4	10	32	35	32	86	85				
Green River	39.0	48.9	42.1	11.4	15.5	14.4	11	29	34	34	126	85				
Dolores River	37.0	38.0	23.0	12.1	11.2	7.7	4	33	40	34	64	69				
San Juan River	50.5	38.3	32.9	17.7	14.9	10.5	5	55	52	32	60	72				
Animas River	32.6	17.8	19.2	10.1	5.5	6.2	3	31	31	32	61	113				
Lower Colorado	7.9	6.1	5.4	2.6	2.2	1.5	4	33	36	33	58	68				
Gila River	1.4	0.0	0.0	0.5	0.0	0.0	7	36	0	0	0	0				
Salt River	1.1	0.0	0.0	0.4	0.0	0.0	5	36	0	0	0	0				
Verde River	4.6	0.0	0.0	1.6	0.0	0.0	6	35	0	0	0	0				
Little Colo.River	4.4	0.0	0.0	1.7	0.0	0.0	5	39	0	0	0	0				
Williams River	0.4	0.0	0.0	0.0	0.0	0.0	3	0	0	0	0	0				
Duchesne River	45.0	52.9	36.7	11.6	17.1	10.5	4	26	34	29	91	61				
Price River	43.7	44.3	33.4	14.4	16.7	11.7	5	30	38	35	81	70				
San Rafael River	61.6	47.1	45.4	21.0	16.6	17.7	2	34	35	39	84	107				
Colorado***	41.6	37.4	21.0	13.0	12.8	5.8	2	31	34	28	45	45				
Virgin**	43.1	28.6	13.4	15.6	11.5	4.8	5	36	40	36	31	42				

*Some for shorter periods

**Colorado (above Glenwood Springs)

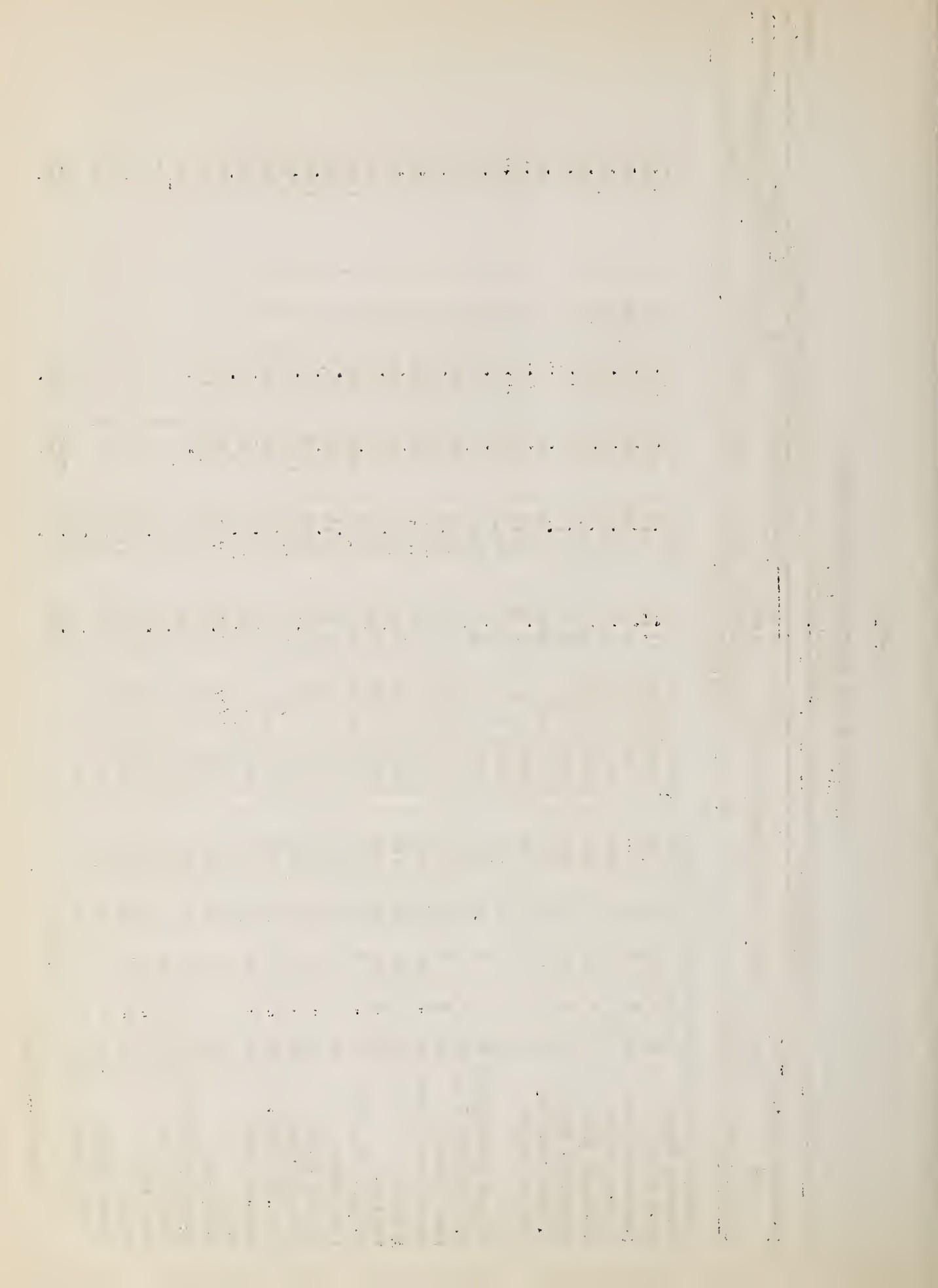
***Colorado (S.E. Utah)



COLORADO RIVER DRAINAGE SNOW SURVEYS
April 1, 1951

Drainage Basin and Snow Course	Location				Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Snow Cover Measurements		Past Record Yrs. of Rec.	Av. Water Content (Inches)
	No. and State	Sec.	Twp.	Range	Elev.			1951	1950		
COLORADO RIVER (above Glenwood Springs)											
Cameron Pass*	1 Colo.	2	6N	76W	10300	3/27	61.2	25.0	18.5	27.8	15
Park View*	7	24	5N	78W	9200	3/30	31.1	8.7	12.5	14.6	15
Phantom Valley	12	"	5N	75W	9300	3/31	43.6	13.5	9.9	13.1	15
Hoosier Pass*	14	"	8S	78W	11400	3/30	54.1	17.6	10.6	12.8	15
Berthoud Pass	16	"	35	2S	75W	9700	3/26	54.2	18.3	14.7	17.0
Tennessee Pass	19	"	21	8S	80W	10200	4/2	45.6	13.2	9.2	15
M. Fork Camp Gr.	37	"	16	3S	77W	9000	4/1	40.9	13.4	8.2	7.3
Fiddler Gulch	44	"	1	8S	80W	11000	4/1	61.9	22.1	16.4	9.7
Lulu	59	"	25	6N	76W	10200	3/28	61.5	21.7	16.9	15.0
Willow Creek Pass	62	"	1	4N	78W	9500	3/30	42.3	12.6	17.6	15.0
N. Inlet Grand L.	64	"	26	4N	75W	9000	3/28	38.5	11.3	7.6	16.8
Lake Irene	65	"	8	5N	75W	10600	3/30	79.9	30.2	20.9	9.2
Thunderbolt Peak	66	"	22	2N	74W	9500	4/2	62.2	19.1	8.7	21.0
Arrow	69	"	34	1S	75W	9900	3/26	40.4	12.5	9.7	16.0
Lapland	70	"	16	2S	76W	9500	3/30	48.2	15.4	14.7	9.7
Fremont Pass #2	79	"	2	8S	79W	11400	3/29	66.9	22.9	16.2	11.2
Lynx Pass	91	"	27	2N	83W	9100	3/28	41.6	12.1	12.6	15.9
Shrine Pass	96	"	15	6S	79W	10500	3/29	65.7	22.4	17.5	12.8
Grizzly Peak	97	"	2	5S	76W	11250	3/31	70.0	24.3	19.1	17.3
Glen-Mar Ranch	102	"	31	2S	77W	8850	4/1	38.3	12.3	8.7	17.6
Monarch Lake	106	"	30	2N	74W	8500	4/2	51.9	14.6	6.5	8.4
Granby	112	"	11	2N	77W	8700	3/27	27.4	7.6	6.2	10.3
Grand Lake	127	"	36	4N	75W	8600	3/31	37.3	10.5	7.4	-----
Berthoud Summit	138	"	10	3N	75W	11300	3/28	65.0	17.3	11.4	-----
Frazer View	139	"	34	2S	75W	10600	3/28	55.7	15.5	9.2	-----
Gore Pass	143	"	2	1N	82W	8900	3/28	35.6	11.4	-----	-----
Frisco	146	"	18	6S	78W	9300	3/29	38.0	11.4	-----	-----
Snake River	147	"	9	5S	76W	9700	3/31	46.7	13.3	11.7	-----
Summit Ranch	158	"	8	4S	78W	10000	3/31	43.4	11.7	13.4	13.4
Average for drainage											
											16.9
											52.4
											13.4
											15.6

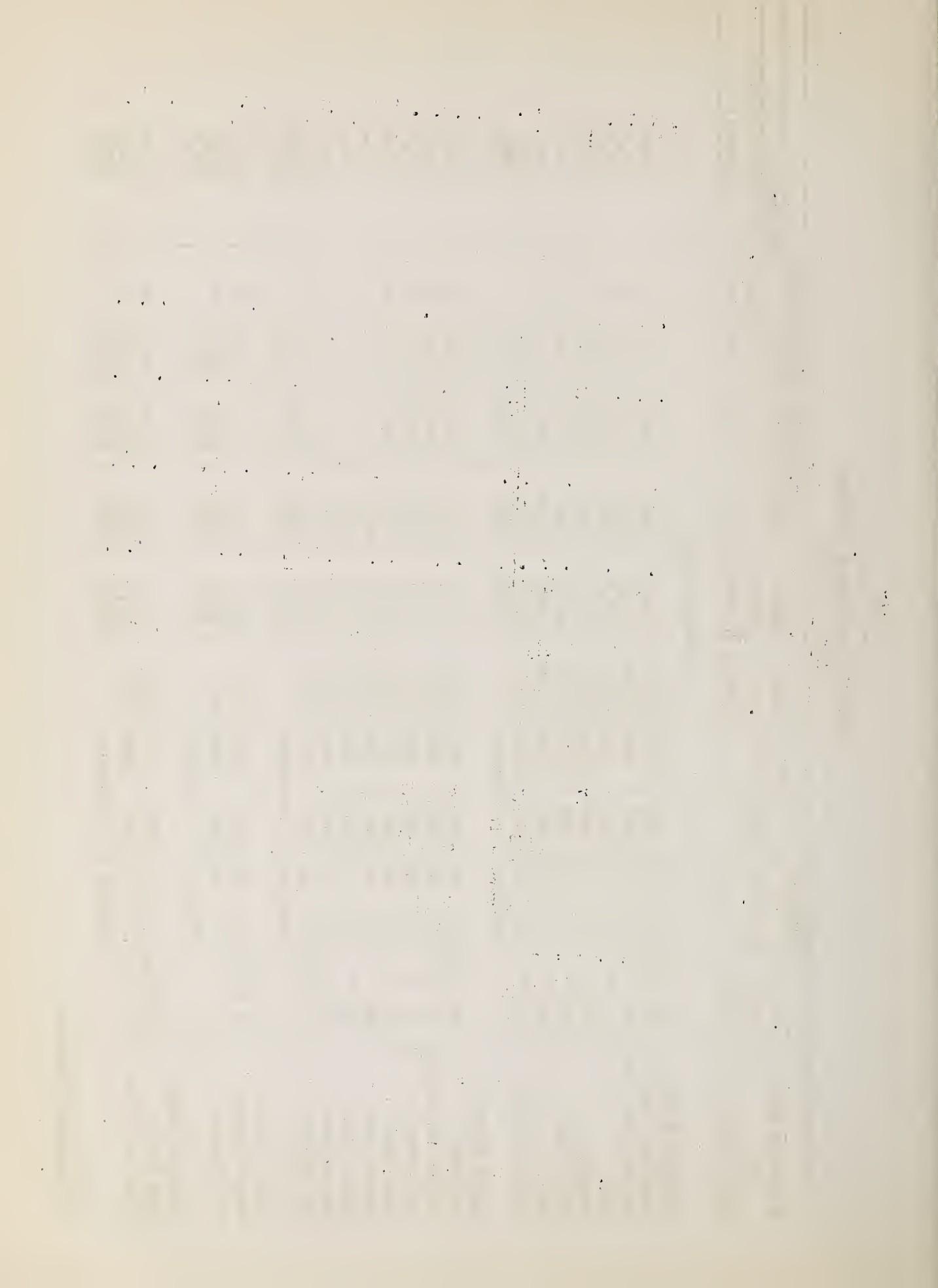
*On adjacent drainage



COLORADO RIVER SNOW SURVEYS
April 1, 1951

Drainage Basin and Snow Course	Location					Snow Cover Measurements				
	No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Yrs. of Rec.	Past Record
COLORADO RIVER										
ROARING FORK										
Ind. Pass Tunnel	33 Colo.	30	11S	82W	10700	3/30	56.6	20.3	17.7	15
N. Lost Trail Cr.	34 "	20	11S	87W	9200	3/30	43.6	15.7	14.7	15
Nast	45 "	1	9S	83W	8700	3/31	27.0	8.7	6.0	15
Ivanhoe	100 "	12	9S	82W	10400	4/2	57.8	20.8	13.9	4
Woods Lake	131 "	2	8S	83W	11000	3/31	45.6	14.1	17.2	---
Ruby	144 "	1	12S	83W	11500	3/29	49.5	15.8	---	1
Lincoln Gulch	145 "	24	11S	83W	10700	3/30	56.2	19.8	---	---
			Average for drainage				42.4	14.9	18.6	12.8
YAMPA RIVER										
Dry Lake	6 Colo.	26	7N	84W	8200	3/28	54.0	19.6	20.0	24.2
Columbine Lodge*	8 "	21	5N	82W	9300	3/27	78.3	29.7	24.3	15
Elk River	9 "	6	10N	85W	8700	4/1	49.2	19.4	18.2	28.9
Lynx Pass*	91 "	27	2N	83W	9100	3/28	41.6	12.1	12.6	15
Routt Line	140 "	13	5N	83W	9700	3/27	104.8	43.2	---	17.2
Rabbit Ears	141 "	30	5N	83W	9550	3/27	77.4	29.9	---	12.8
Yampa View	142 "	21	5N	84W	8500	3/27	44.5	15.3	---	---
Old Battle*	9 "yo.	29	14N	85W	9800	3/28	86.3	33.3	37.0	32.2
			Average for drainage				61.9	22.8	27.6	21.0
WHITE RIVER										
Burro Mountain	35 Colo.	15	2S	91W	9000	4/1	40.8	13.5	17.2	13.8
Rio Blanco	36 "	28	1N	88W	8500	4/1	48.2	16.5	14.2	15.7
			Average for drainage				44.5	15.0	15.7	17.3
PLATEAU CREEK										
Mesa Lakes	56 Colo.	35	11S	96W	10000	3/31	38.4	11.0	15.4	18.5
Trickle Divide	85 "	23	11S	94W	10000	3/29	62.1	20.8	33.8	33.3
			Average for drainage				50.3	15.9	24.6	25.9

*On adjacent drainage



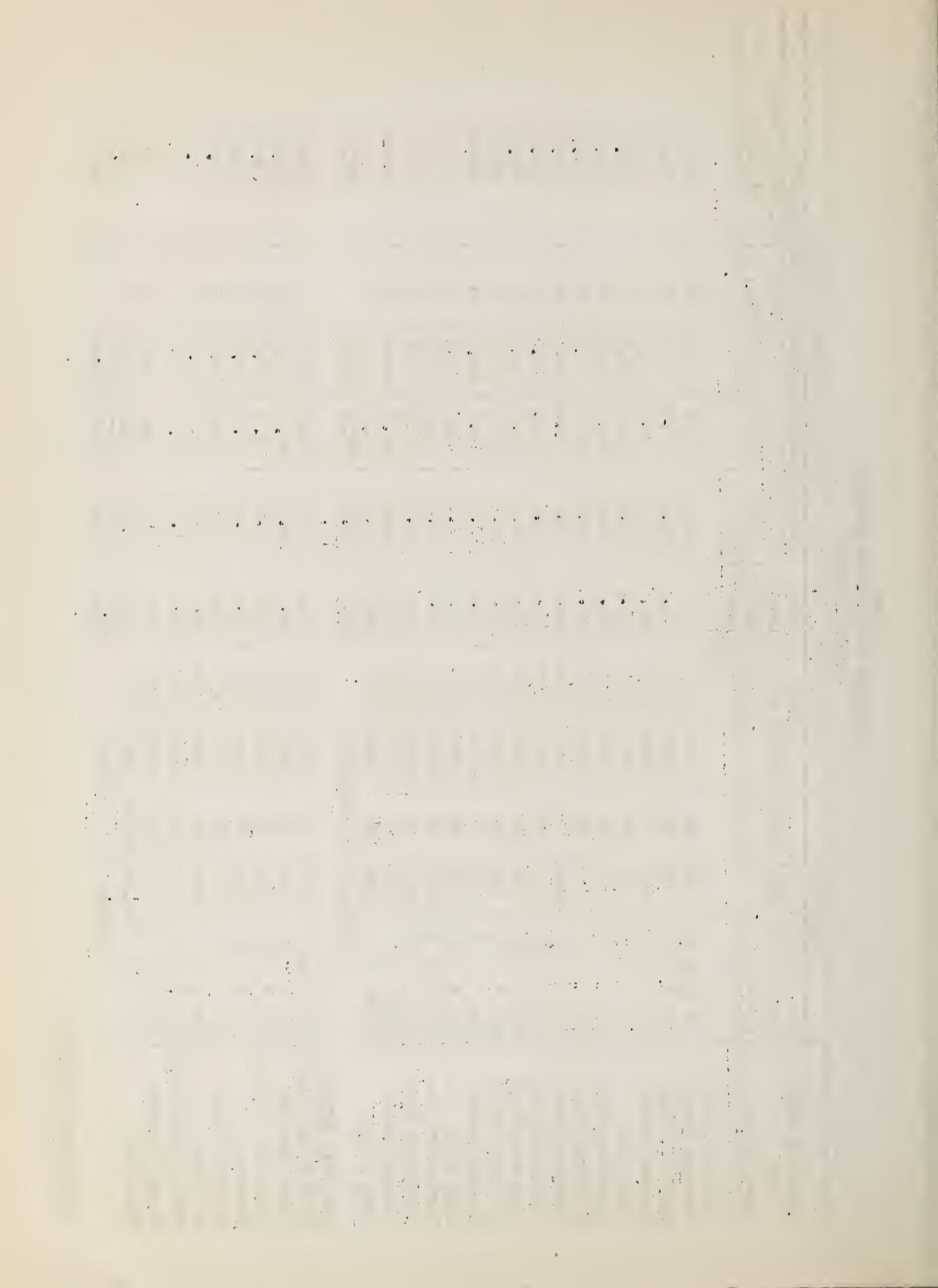
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COLORADO RIVER SNOW SURVEYS

April 1, 1951

Drainage Basin and Snow Course	No. and State	Location			Elev.	Date of Survey	Snow Depth (Inches)	Snow Course Measurements			Past Record
		Sec.	Twp.	Range				Water Content (Inches)	Yrs. of Rec.	Avg. Water Content (Inches)	
COLORADO RIVER											
GUNNISON RIVER											
Crested Butte	18 Colo.	22	13 S	86W	9000	4/1	41.8	16.0	16.9	15.1	14.9
Marshall Pass	" 24	48N	6E	10800	3/31	46.6	14.2	9.4	14.8	15	13.0
Poncha Creek*	43 " 19	48N	7E	10500	3/31	41.3	12.5	7.5	13.7	15	11.0
Park Cone	46 " 19	14 S	82W	9700	4/1	40.6	11.0	13.8	15.6	14	10.2
Alexander Lake	53 " 2	12 S	25W	10000	3/29	52.0	16.6	23.8	26.1	14	24.1
Snowshoe Mesa	55 " 14	13 S	89W	7500	3/31	14.2	6.0	11.6	8.2	14	8.2
Ironton Park	58 " 29	43 N	7W	9800	3/28	26.6	8.7	7.3	19.3	14	14.1
Trickle Divide	85 " 23	11 S	94W	10000	3/29	62.1	20.8	33.8	33.5	11	28.8
Park Reservoir	87 " 34	11 S	94W	9500	3/30	57.0	19.2	31.6	30.1	11	26.4
Porphyry Creek	89 " 19	49 N	6E	10800	3/28	67.0	19.2	14.2	20.2	11	16.6
Kannah Creek	101 " 5	12 S	95W	10700	3/31	55.8	17.1	22.7	26.1	4	26.4
Lake City	104 " 13	43 N	4W	10300	4/1	23.9	5.3	4.5	10.3	3	---
Spring Cr. Pass	123 " 2	42 N	3W	10900	3/31	23.9	5.4	8.2	18.8	2	---
Cochetopa Pass	126 " 12	45 N	3E	10000	3/31	19.5	4.7	5.0	8.5	2	---
McClure Pass	132 " 1	11 S	89W	9500	3/30	41.7	14.9	18.5	---	2	---
Long Gulch	159 " 1	52W	49N	9100	4/1	28.9	6.7	---	---	-	---
Average for Drainage								14.9	17.5	20.2	17.6
SAN JUAN RIVER											
Wolf Creek Pass*	26 Colo.	4	37N	2E	10000	3/30	64.4	20.3	31.2	42.3	15
Upper San Juan	29 "	10	37N	1E	10000	3/30	69.1	22.5	34.1	47.2	15
Silverton Sub.S.	30 "	10	41N	7W	9400	3/30	10.8	3.4	1.9	6.6	15
Cascade	31 "	12	39N	5W	8850	3/30	20.3	6.4	7.4	20.8	15
Granite Peaks	33 "	24	37N	6W	7950	4/1	0.0	0.0	0.0	10.3	10
La Plata	135 "	4	36N	1W	9700	3/29	29.3	11.6	13.7	---	1
Wolf Creek Summit	155 "	6	37N	2E	11000	3/30	63.0	19.0	---	---	-
Chama Divide*	17 N.M.		36.9N	106.7W	7750	4/4	0.0	0.0	0.0	8.8	11
Chamita*	18 "		36.9N	106.7W	8500	4/4	15.4	4.2	7.3	15.1	9
Average for drainage								32.9	10.5	25.4	17.7

*On adjacent drainage

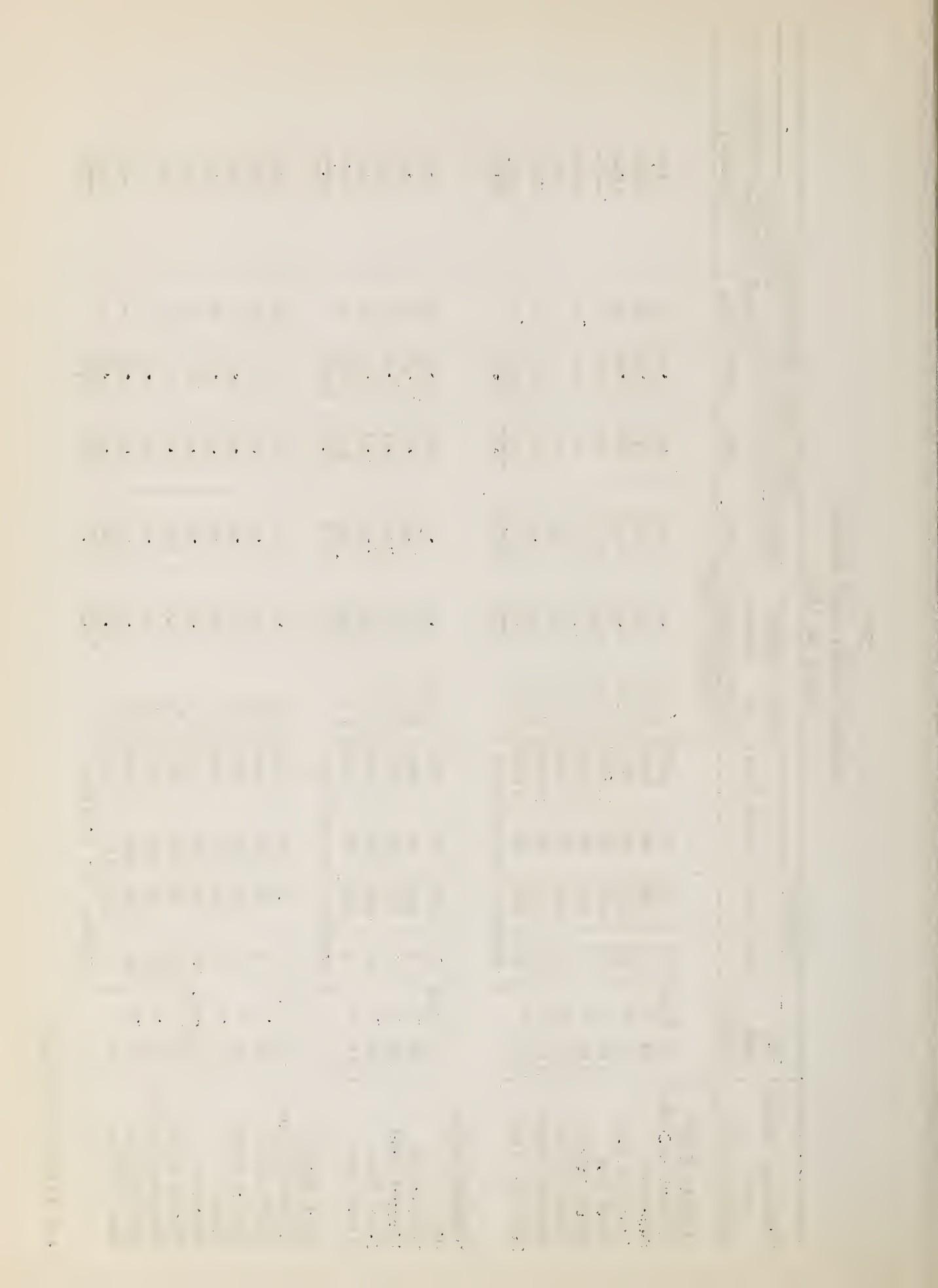


COLORADO RIVER SNOW SURVEYS

April 1, 1951

Drainage Basin and Snow Course	No. and State	Location			Range	Elev.	Date of Survey (Inches)	Snow Depth (Inches)	Snow Course Measurements		
		Sec.	Twp.	Survey					Water Content (Inches)	1949	1950
COLORADO RIVER											
Silverton Sub. S.	30 Colo.	10	41N	7W	9400	3/30	10.8	3.4	1.9	6.6	15
Cascade	31 "	12	39N	9W	8850	3/30	20.3	6.4	7.4	20.8	15
Ironton Fork	58 "	29	43N	7W	8700	3/28	26.6	8.7	7.3	19.3	14
Spud Mt.	149 "	32	40N	8W	10700	3/30	49.4	18.6	---	---	14.1
Molas Lake	150 "	7	40N	7W	10500	3/30	31.5	8.9	---	---	---
Howardville	151 "	15	41N	7W	9800	3/30	29.3	9.0	---	---	---
Mineral Creek	152 "	35	42N	8W	10300	3/30	39.2	12.0	---	---	---
Red Mt. Pass	153 "	13	42N	8W	11000	3/30	74.0	29.1	---	---	---
		Average for Drainage					19.2	6.2	5.5	15.6	10.1
DOLORES RIVER											
Rico	23 Colo.	11	39N	11W	8700	3/29	12.0	3.4	8.0	13.5	15
Telluride	24 "	6	42N	8W	8600	4/1	14.6	6.1	7.4	10.7	8.5
Lizard Head	25 "	24	41N	10W	10300	3/29	38.9	14.0	18.1	30.4	7.6
Line Cone	90 "	23	41N	13W	8900	4/3	26.3	7.4	11.1	16.9	19.9
Trout Lake	114 "	8	41N	9W	9700	4/1	34.5	8.0	9.2	17.2	12.6
		Average for drainage					23.0	7.7	11.2	17.9	12.1
GILA RIVER											
Frisco Divide	11 N.M.	21	6S	20W	8000	4/1	0.0	0.0	0.0	0.0	0.8
State Line	14 "	5	6S	21W	8000	4/1	0.0	0.0	0.0	0.0	0.5
Taylor Creek	22 "	20	10S	10W	7850	4/1	0.0	0.0	0.0	0.0	0.1
Inman	23 "	6	11S	10W	7800	4/1	0.0	0.0	0.0	0.0	0.1
Nutrioso	1 Ariz.	23	6N	30E	8500	4/1	0.0	0.0	0.0	0.0	0.0
Beaver Head	2 "	13	4N	30E	8000	4/1	0.0	0.0	0.0	0.0	0.8
Coronado Trail	3 "	26	5N	30E	8000	4/1	0.0	0.0	0.0	0.0	1.1
Rose Canyon	29 "	15	12S	16E	7300	4/1	0.0	0.0	0.0	0.0	1.1
Bear Mallow	30 "	6	12S	16E	8100	4/1	0.0	0.0	0.0	0.0	---
		Average for drainage									0.0

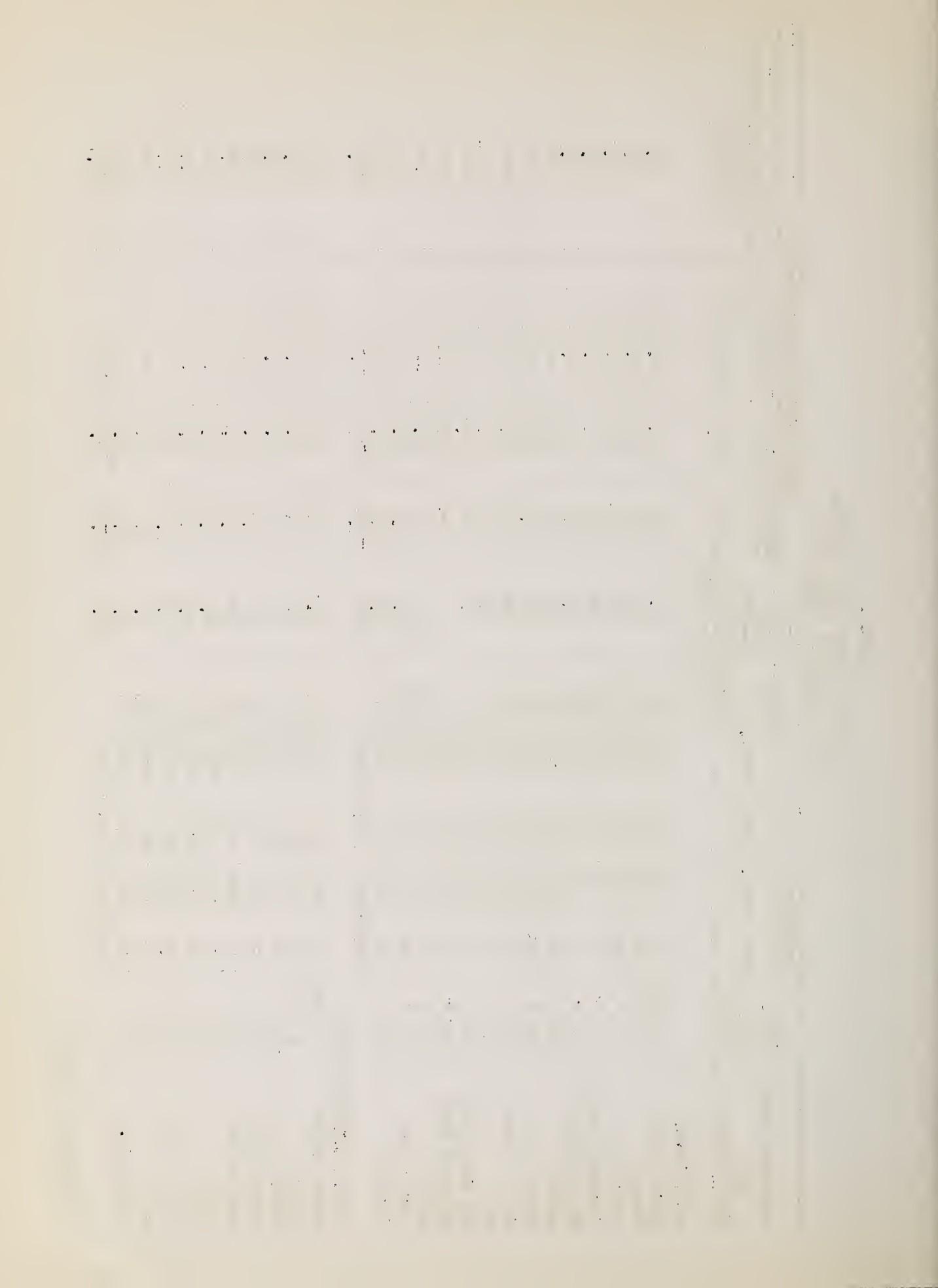
*On Adjacent drainage



COLORADO RIVER SNOW SURVEYS
April 1, 1951

Drainage Basin and Snow Course	Location					Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Snow Course Measurements			
	No. and State	Sec.	Twp.	Range	Elev.				1951	1950	1949	Yrs. of Rec.
SALT RIVER												
Forest Dale	5 Ariz.	2	9N	21E	6000	4/1	0.0	0.0	0.0	0.0	0.0	0.0
McNary	4 "	14	8N	23E	7200	4/1	0.0	0.0	0.0	0.0	0.0	0.3
Nutrioso	1 "	23	6N	30E	8500	4/1	0.0	0.0	0.0	0.0	0.0	0.5
Coronado Trail	3 "	26	5N	30E	8000	4/1	0.0	0.0	0.0	0.0	0.0	1.1
Milk Ranch	6 "	28	8N	23E	7000	4/1	0.0	0.0	0.0	0.0	0.0	0.2
Gentry	28 "	36	11N	15E	7600	4/1	0.0	0.0	0.0	0.0	0.0	---
Heber	27 "	28	11N	15E	7600	4/1	0.0	0.0	0.0	0.0	0.0	---
Canyon Creek	26 "	18	11N	15E	7500	4/1	0.0	0.0	0.0	0.0	0.0	---
Elk	25 "	31	11N	14E	7600	4/1	0.0	0.0	0.0	0.0	0.0	---
Big Lake Knoll	24 "	2	5N	28E	8800	---	---	---	1.4	1.4	1.4	---
Maverick Fork	23 "	13	6N	27E	9050	---	---	---	1.5	1.5	1.5	---
Baldy	22 "	28	7N	27E	9000	3/30	0.0	0.0	0.0	0.0	0.0	---
Fort Apache	21 "	18	7N	27E	9000	3/30	11.1	3.8	0.0	0.0	0.0	---
Workman	31 "	33	6N	14E	5860	4/1	0.0	0.0	0.0	0.0	0.0	---
Average for Drainage												0.4
LITTLE COLORADO RIVER												0.4
Forest Dale*	5 Ariz.	2	9N	21E	6000	4/1	0.0	0.0	0.0	0.0	0.0	0.0
McNary	4 "	14	8N	23E	7200	4/1	0.0	0.0	0.0	0.0	0.0	0.3
Nutrioso*	11 "	23	6N	30E	8500	4/1	0.0	0.0	0.0	0.0	0.0	0.5
Mormon Lake	13 "	13	18N	8E	7350	4/1	0.0	0.0	0.0	15.3	4	6.3
Fort Valley	12 "	22	22N	6E	7350	4/1	0.0	0.0	0.0	0.0	5.9	1.5
Gentry	28 "	36	11N	15E	7600	4/1	0.0	0.0	0.0	0.0	0.0	---
Heber	27 "	28	11N	15E	7600	4/1	0.0	0.0	0.0	0.0	0.0	---
Canyon Creek	26 "	18	11N	15E	7500	4/1	0.0	0.0	0.0	0.0	0.0	---
Elk	25 "	31	11N	14E	7600	4/1	0.0	0.0	0.0	0.0	0.0	---
Mormon Mt.	19 "	14	18N	8E	7500	4/1	0.0	0.0	0.0	0.0	0.0	0.4
Average for drainage												0.0

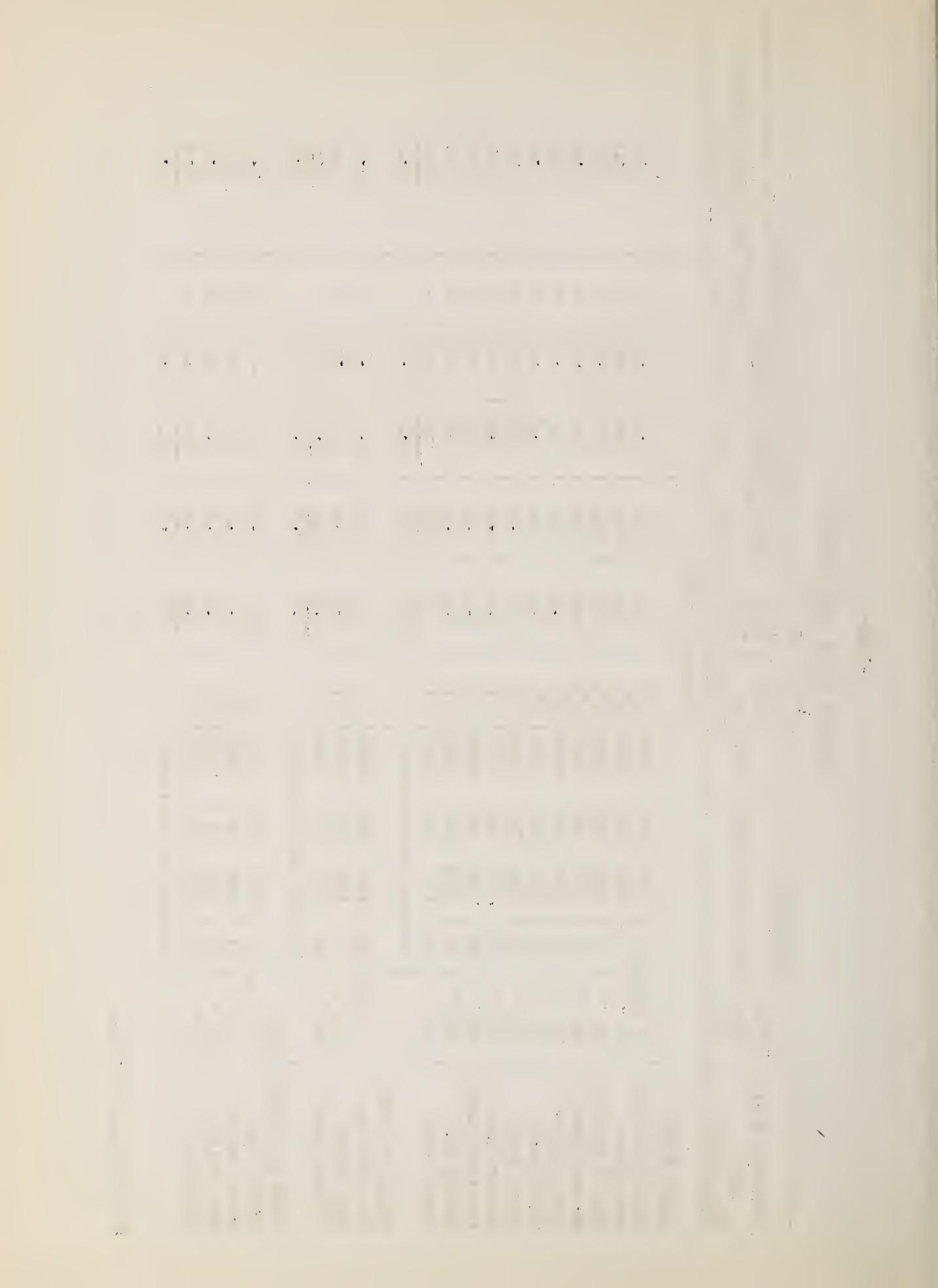
*On adjacent drainage



COLORADO RIVER SNOW SURVEYS
April 1, 1951

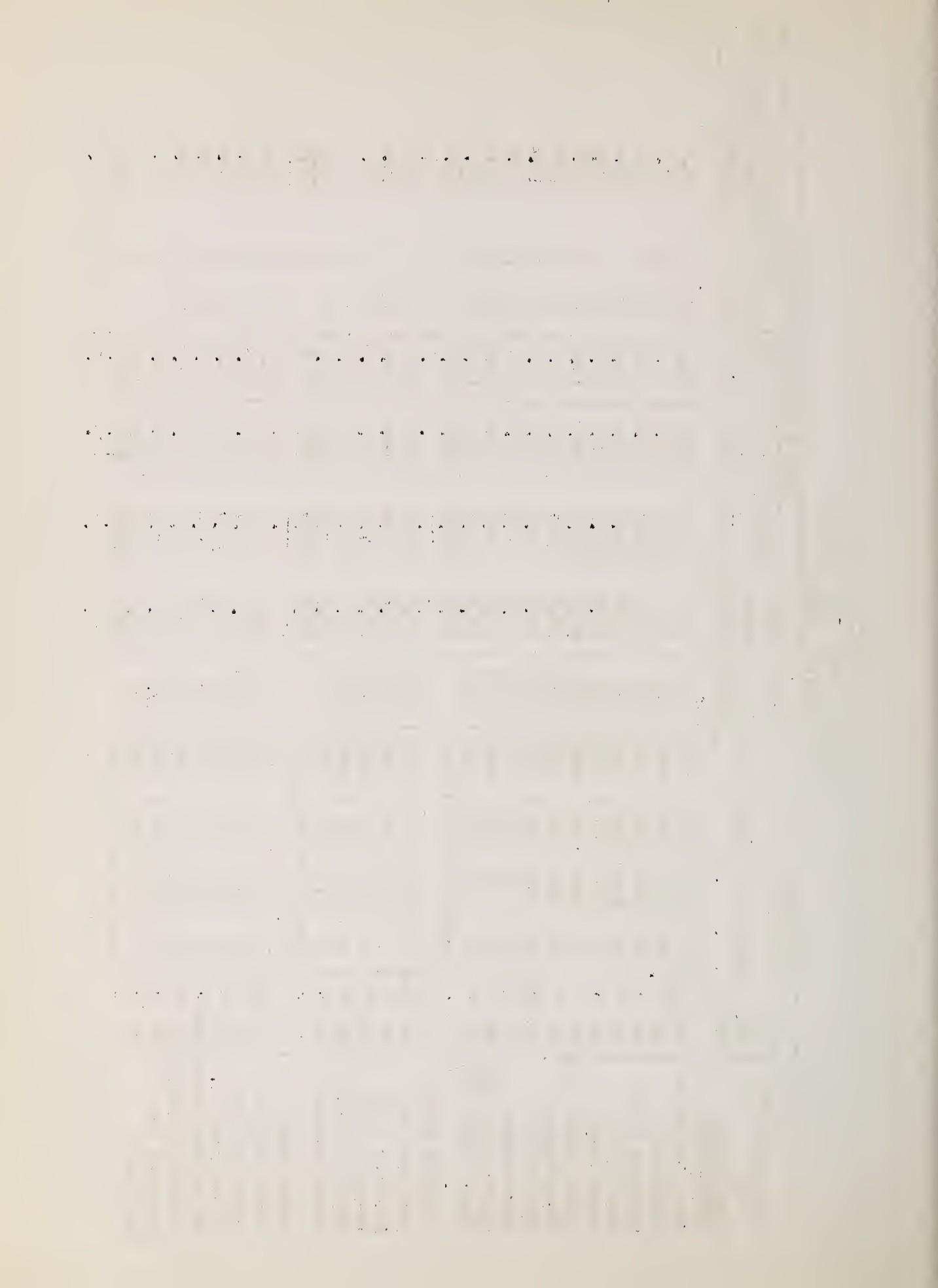
Drainage Basin and Snow Course	Location					Date of Survey	Snow Depth (Inches)	Snow Course Measurements			
	No. and State	Sec.	Twp.	Range	Elev.			1951	1950	1949	Yrs. of Rec.
COLORADO RIVER											
VERDE RIVER											
Iron Springs*	7 Ariz.	22	14N	3W	6200	4/1	0.0	0.0	0.0	5	
Camp Wood	8 "	3	16M	6W	5700	4/1	0.0	0.0	0.3	5	
Mingus Mountain	14 "	3	15N	2E	7100	4/1	0.0	0.0	0.0	4	
Mormon Lake*	13 "	13	18N	8E	7350	4/1	0.0	0.0	0.0	4	
Fort Valley*	12 "	22	22N	6E	7350	4/1	0.0	0.0	15.3	4	
Chalender*	9 "	27	22N	3E	7100	4/1	0.0	0.0	0.0	4	
Munds Park	18 "	7	18N	7E	6500	4/1	0.0	0.0	0.0	4	
Casner Park	17 "	19	18N	8E	6930	4/1	0.0	0.0	0.0	4	
Antelope Park	16 "	29	19N	8E	7300	4/1	0.0	0.0	0.0	4	
Mormon Mt.	19 "	14	18N	8E	7500	4/1	0.0	0.0	0.0	4	
Happy Jack	32 "	30	17N	9E	7630	4/1	0.0	0.0	0.0	4	
	Average for drainage						0.0	0.0	0.0	4.6	
WILLIAMS RIVER											
Iron Springs	7 Ariz.	22	14N	3W	6200	4/1	0.0	0.0	0.0	5	
Camp Wood*	8 "	3	16M	6W	5700	4/1	0.0	0.0	0.3	5	
Willow Ranch	15 "	16	21N	11W	5000	4/1	0.0	0.0	0.0	3	
	Average for drainage						0.0	0.0	0.2	0.0	
LOWER COLORADO RIVER											
Bright Angel	11 Ariz.	34	33N	4E	8400	4/1	18.5	4.5	8.6	---	
Grand Canyon	10 "	21	30N	4E	7500	4/1	3.1	1.4	0.0	3	
Fort Valley	12 "	22	22N	6E	7350	4/1	0.0	0.0	0.0	3	
Chalender	9 "	27	22N	3E	7100	4/1	0.0	0.0	0.0	3	
	Average for drainage						5.4	1.5	2.2	2.9	

*On adjacent drainage



COLORADO RIVER SNOW SURVEYS
April 1, 1951

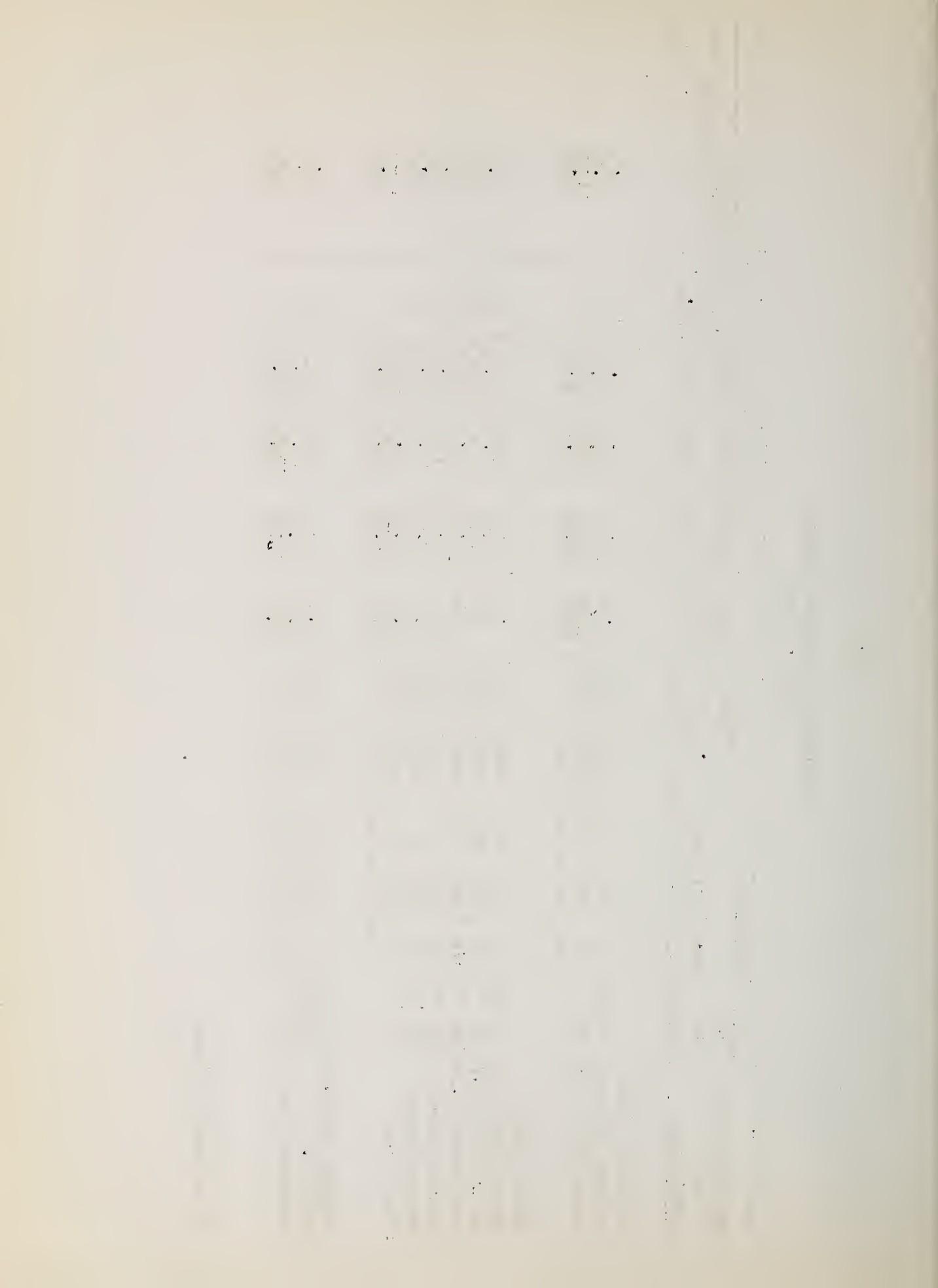
Drainage Basin and Snow Course	Location		Snow Course Measurements						Fast Record	
	No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Yrs. of Av. Rec.	Yrs. of Av. Water Content (Inches)
GREEN RIVER	44 Wyo.	32	37N	11W	7950	---	---	17.4	12.5	11.5
East Rim Divide	23 "	33	31N	104W	8700	3/30	39.1	10.4	11.2	9.0
Dutch Joe	23 "	17	35N	108W	8900	4/2	47.6	16.5	15.0	10.5
Mulligan Park	24 "	23	38N	110W	7900	4/2	40.7	14.0	13.1	11.4
Kendall P.S.	25 "	14	37N	111W	8500	4/2	65.7	25.6	26.6	16.4
Loomis Park	26 "	15	29N	114W	8040	3/29	51.5	22.1	10.2	12.7
Snyder Basin R.S.	27 "	19	29N	114W	8820	3/29	66.7	24.8	24.4	17.4
Pincay-LaBerge	28 "	33	3N	13E	9500	3/28	39.6	9.9	11.6	9.6
Hewinta R.S.	34 Utah	13	2N	15E	9150	3/28	22.2	5.4	5.7	6.0
Hole-in-Rock	35 "	22	1S	21E	8800	3/30	26.0	8.2	13.1	11.4
King's Cabin (U)	39 "	23	1S	21E	8600	3/30	21.4	6.6	13.1	10.0
King's Cabin (L)	39A "	Average for drainage						42.1	14.4	11.4
DUCHENSE RIVER	36 Utah	3	2N	5W	10500	3/29	38.6	10.6	16.0	10.8
Lake Fork Mt.	37 "	7	3N	1E	10500	3/29	30.9	7.4	10.0	12.8
Paradise Park	38A "	5	2N	1E	9500	3/29	32.4	8.8	17.0	12.2
Mosby Mt. (L)	73 "	2	2N	6W	10300	3/30	55.9	17.8	23.7	10.5
Brown Duck Lake	40 "	2	11S	10E	9100	3/29	25.8	7.7	15.6	15
Indian Canyon		Average for drainage						36.7	10.5	11.6
PRICE RIVER	40 Utah	2	11S	10E	9100	3/29	25.8	7.7	15.6	10.5
Indian Canyon	41 "	25	13S	5E	8700	3/29	48.6	17.7	22.9	20.5
Gooseberry Res.	42A "	32	12S	7E	7600	4/1	10.4	2.8	8.5	6.5
Staley Ranch	42B "	20	12S	8E	7800	4/1	27.8	7.8	15.0	9.1
Dry Valley Divide	43 "	12	14S	5E	9800	3/29	54.4	22.4	21.6	25.4
Huntingtn.-Horseshoe	76 "	22	12S	11W	9000	4/1	23.6	8.0	15.2	18.3
Scoviefield Dam	77 "	4	14S	11W	8600	4/1	46.3	15.7	18.3	19.9
Mud Creek		Average for drainage						33.4	11.7	14.4



COLORADO RIVER SNOW SURVEYS
April 1, 1951

Drainage Basin and Snow Course	Location					Date of Survey	Snow Depth (Inches)	Snow Course Measurements		
	No. and State	Sec.	Twp.	Range	Elev.			Water Content (Inches)	Yrs. of Rec.	Past Record
SAN JAEFFEL RIVER Hntngtn-Horseshoe Seeley Creek R.S.*	43 Utah 25 "	12 17S	14S 4E	5E 4E	9800 10000	3/29 3/29	54.4 36.4 45.4	22.4 13.0 17.7	21.6 11.6 16.6	27.3 20.3 24.8
VIRGIN RIVER Gravel Spgs-Jnct. Harris Flat R.S.* Duck Creek R.S.* Cedar Breaks* Webster Flatts* Pine Valley	56 Utah " 24 " 11 " 13 " 20 " 3	22 38S 38S 38S 37S 37S 40S	6W 7W 8W 9W 9W 15W	38S 7W 8W 9W 9W 15W	7500 7700 8560 10200 9200 9150	3/28 3/28 3/28 3/29 3/26 3/27	0.0 0.0 17.9 28.6 20.7 20.9	0.0 0.0 7.2 10.2 6.6 6.4	0.0 0.0 15.5 19.1 14.1 14.8	8.5 8.7 14.8 21.7 21.7 19.5
COLORADO R. (S.E. UTH.) LaSal Mt. Buckboard Flat	64 Utah 65 "	5 36	27S 33S	24E 22E	8800 9000	3/28 4/2	17.4 24.6 21.0	4.9 6.6 6.8	12.5 13.1 12.8	18.2 26.3 22.3

*On adjacent drainage



Federal - State - Private
COOPERATIVE SNOW SURVEYS

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necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
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“WATER IS THE WEST’S GREATEST RESOURCE”